

# 75th Air Base Wing

## Maintaining GHG Inventory Compliance at Hill AFB in the Midst of Regulatory Uncertainty



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# Introduction

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- **In preparation for imminent GHG legislation...**
  - **Baseline inventories were completed from all activities based on 2008 data**
    - **Hill AFB MB**
    - **Hill AFB UTTR**
- **Despite the short time period; there is a significant amount of GHG-related regulatory requirements:**
  - **Mandatory Reporting Rule**
  - **EO13514**



# Introduction

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- Utilizing lessons learned during the baseline inventory, lets discuss:
  - Challenges associated with the rules
  - Strategies used
    - to differentiate between submittal requirements
    - maintain data records
    - organize calculation methodologies



# Challenges associated with the MRR



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- **Applicability not easily determined based on the information presented in the federal register**
- **Many emission calculation methodologies were unclear or contained inaccurate references**
- **How does one estimate the applicability of the rule based on the assessment of future emissions?**
- **Utilization of the EPAs reporting tool**
  - **User access did not become available prior to the required submittal date**
  - **The level of detail required for the data entry process was unclear**



# Hill AFB Response to MRR Challenges



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- **Having a baseline assessment of GHG emission sources enabled:**
  - **Faster identification of GHG-specific info**
  - **Familiarity with various calculation methodologies**
- **Guidance became available from AFMC**
  - **Helped assess emissions from less ambiguous source categories and determine applicability**
  - **Hill AFB was subject to the MRR:**
    - **Stationary combustion emissions will exceed 25,000 mTons CO<sub>2</sub>e**



# Hill AFB Response to MRR Challenges



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- **Stationary combustion sources were identified**
  - Does not include portable equipment, or emergency equipment
  - Examples at Hill AFB include:
    - primary-power boilers, generators
    - building heaters, process heaters, furnaces
    - off-wing jet engine test stands
- **GHG monitoring plan developed**
  - Identifies applicable emission sources, methods of data collection and emission calculations, and responsible parties
  - Routed through applicable tenant orgs
  - Updated annually, or more frequently as needed



# Challenges Associated with EO13514



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- **October 8, 2009, EO13514 (Federal Leadership in Environmental, Energy, and Economic Performance) published**
  - **Establishes GHG emission reductions for Federal agencies and provides timelines for the fulfillment of these goals**
  - **Applies to Scope 1, Scope 2, and Scope 3 emissions**
  - **Based on fiscal year**





# Challenges Associated with Greenhouse Gases



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- Integrating the requirements of the MRR and EO13514 with AEI data meant overcoming several challenges
  - AEI usage may have variable reporting periods depending upon record-keeping requirements (monthly, annually)
  - Emission calculations require additional inputs:



# Challenges Associated with Greenhouse Gases



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Variation on the following equation:

$$E_{CO2e} = F * HHV * EF / 1,000 * GWP$$

- Incorporate **E** (GHGs) along with CPs and HAPs
- **EFs** for GHGs added to the database
- Emissions reporting in metric tons
- Re-evaluate fuel characteristics (**HHV**)



# Solutions

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- Obtain additional data thru field visits and calls to manufacturers
- Calculations used for the AEI were modified so they could also be used for MRR
- Higher resolution data to accommodate both reporting periods
- Database engineers add GWP values into system
- References to baseline inventories...KEY



# Questions?

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